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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/527,947	03/15/2005	Johannes Marra	NL02 0867 US	9560

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PHILIPS ELECTRONICS NORTH AMERICA CORPORATION  
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SAN JOSE, CA 95131

EXAMINER
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ZETTL, MARY E

ART UNIT	PAPER NUMBER
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2875

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/23/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	Application No. 10/527,947	Applicant(s) MARRA, JOHANNES	
	Examiner Mary Zettl	Art Unit 2875	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 20 October 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,6,8-10,12,14,15 and 18 is/are rejected.
- 7) ☒ Claim(s) 2-5,7,11,13,16,17,19 and 20 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |                                                                                      |                                                                   |
|--------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date: _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date: _____                                                         | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. Claims 1, 9, and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by Smith (US 5,745,266 A).

Regarding claim 1, Smith discloses a device comprising a slab light guide (11) having two substantially parallel sides and at least one edge, the edge connecting surfaces of the two sides, at least one light input unit (15, 17, and 19) arranged on at least one side of the light guide that includes at least one light source (17) and a light incoupling element (15) that is configured to couple light into the light guide in a direction that facilitates propagation of the light within the light guide via internal reflection (Figure 2; Abstract), and at least one light output unit, arranged on at least one side of the light guide, that includes a light outcoupling element (13) that is configured to couple the light out of the light guide.

Regarding claim 9, Smith discloses at least one of the light input unit and the light output unit extending substantially across an entirety of surface area of one side of the light guide (item 13 extending substantially across entirety of surface of the light guide).

Regarding claim 10, Smith discloses a first surface area of the at least one side that is covered by the at least one light input unit (15) being larger than a second surface area of the at least one side that is covered by the at least one light output unit (13).

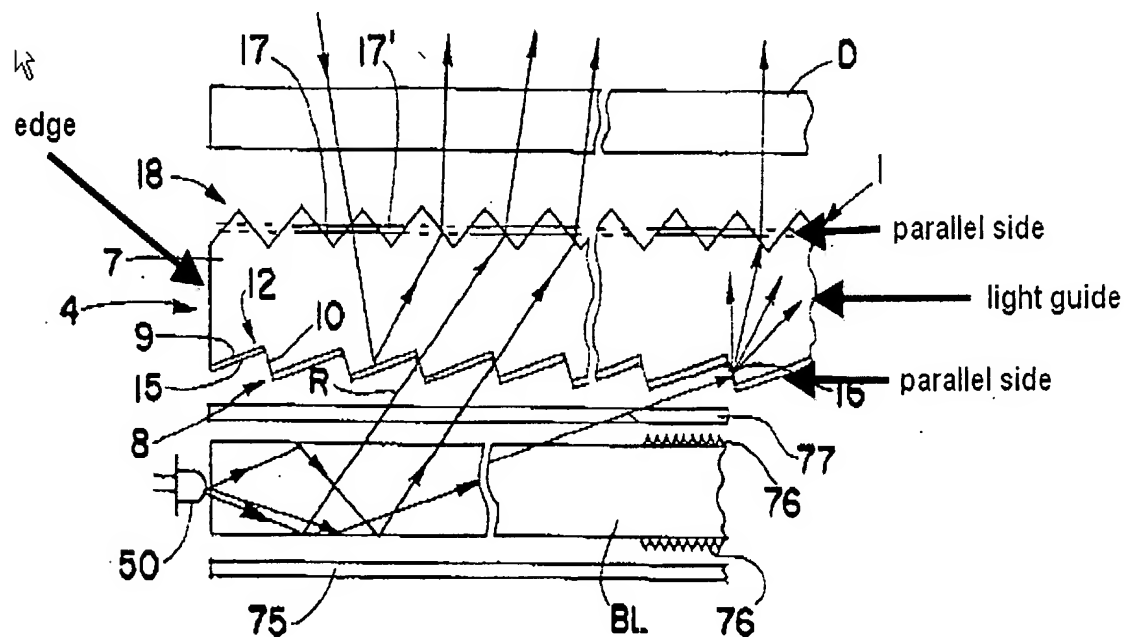
Claims 14 and 15 are rejected under 35 U.S.C. 102(e) as being anticipated by Parker et al. (US 2002/0080598 A1).

Regarding claim 14, Parker et al. disclose a display device (Figure 1) comprising: a display screen (D) , and a light generating device that includes a slab light guide (4) having two substantially parallel sides and at least one edge, the edge having a surface connecting surfaces of the two sides, at least one light input unit arranged on at least one side of the light guide, that includes at least one light source (optical deformities, 76 act as individual light sources) and a light incoupling element (9 and 10) for coupling light into the light guide, and at least one light output unit (18) arranged on at least on side of the light guide, that includes a light outcoupling element (18) for coupling light out of the light guide.

Regarding claim 15, Parker et al. further disclose the at least one light input unit (9 and 10) extending substantially over a whole surface area of the side of the light guide facing away from the display screen, the at least one light output unit (18)

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extending substantially over a whole surface area of the side of the light guide facing the display screen; and a size and geometry of the side of the light guide facing the display screen substantially corresponding to a size and geometry of the display screen (Figure 1).



**Claim Rejections - 35 USC § 103**

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The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 6, 12, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith (US 5,745,266 A) in view of Parker et al. (2002/0080598 A1).

Regarding claims 6 and 18, Smith teaches the light outcoupling element (13a) including at least one transparent surface section. Smith does not teach a plurality of light outcoupling elements. Smith teaches the edge of the transparent surface being at an angle substantially different from zero degrees (90 degrees). Parker et al. teaches a plurality of light outcoupling elements (18) including at least one transparent surface section (Figure 1, indicates transparency by illustrating the light rays passing through the surface) arranged at an angle substantially different from zero degrees with respect to the surfaces of the light guide. At the time the invention was made, it would have been obvious to one of ordinary skill in the art to have modified the invention of Smith such that there were a plurality of light outcoupling elements arranged at angles substantially different from zero degrees as taught by Parker et al. in order to enhance the quality of output light.

Regarding claim 12, Smith does not teach a light input unit for directing light from external light sources into the light input unit. Parker et al. teaches the light input unit including a light directing element (9) for directing light from external light sources

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(paragraph 49) into the at least one light input unit. At the time the invention was made, it would have been obvious to one of ordinary skill in the art to have modified the invention of Smith such that a means for directing external light into the light input unit was provided as taught by Parker et al. such that the brightness of the display was increased without additional power consumption.

3. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Smith (US 5,745,266 A) in view of Hatazawa et al. (US 6,239,851 B1).

Regarding claim 8, Smith does not disclose expressly the light guide being provided with a light reflection element at its edge. Hatazawa et al. teaches a light guide (4) including a light reflection element (8a) at its edge that is substantially not in optical contact with the light guide. At the time the invention was made, it would have been obvious to one of ordinary skill in the art to have modified the invention of Smith such that a light reflection element was provided at the edge of the light guide as taught by Hatazawa et al. in order to increase the efficiency of output light.

***Allowable Subject Matter***

4. Claims 2-5, 7, 11, 16, 17, 19, and 20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Regarding claim 2, prior art fails to teach or make obvious a device comprising at least one light input unit, arranged on at least one side of a slab light guide, that

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includes at least one light source and a light incoupling element that is configured to couple light into the light guide in a direction that facilitates propagation of the light within the light guide via internal reflection and the light incoupling element further including incoupling optical elements including a reflective surface section facing the light source and being aligned substantially parallel to the surfaces of the light guide, and at least one transparent surface section being arranged at an angle substantially different from zero degrees with respect to the surfaces of the light guide.

Regarding claim 7, prior art fails to teach or make obvious a device according to the base claims and further including outcoupling elements arranged at intervals with light reflecting elements arranged between the outcoupling optical elements and including a reflective surface facing away from the light guide.

Regarding claim 11, prior art fails to teach or make obvious a device as set forth in claim 1, wherein a first surface area of the at least one side that is covered by the at least one light input unit is smaller than a second surface area of the at least one side that is covered by the at least one light output unit.

### ***Response to Arguments***

5. In the office action dated August 7, 2006, the device of Parker et al. including a slab light guide having two substantially parallel sides and at least one edge, the edge having a surface connecting the surfaces of the sides (Figure 1) and light incoupling means (9 and 10) for coupling light into the light guide, and at least one light output unit arranged on at least one side of the light guide comprising a light outcoupling means



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(18) for coupling light out of one of the light guide. In the previous office action the slab light guide (4) was not labeled expressly, however the examiner had considered this part obvious given that the light input unit (9 and 10) and the light output unit (18) that are coupled to the two substantially parallel sides of the light guide were labeled.

Therefore, in response to the applicant's arguments, Parker teaches a slab light guide (4) having two substantially parallel sides to which a light input unit (items 9 and 10) and a light output unit (18) are coupled.

### ***Conclusion***

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mary Zettl whose telephone number is (571) 272-6007.


The examiner can normally be reached on M-F 8am-4:30pm.

8. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Renee Luebke can be reached on (571) 272-2009. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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MZ

  
RENEE LUEBKE  
PRIMARY EXAMINER